

PATENT  
Atty. Dkt. No. ROC920010240US1  
MPS Ref. No.: IBMK10240

**IN THE CLAIMS:**

Please cancel claims 3-6, 9-11, 16-19, 22-24 and 30-31 without prejudice and amend the claims as follows:

1. (Currently Amended) A method of providing programming assistance for an integrated development environment, comprising:
  - receiving a selection of a method call from a list of method calls; ~~and~~
  - determining one or more variables types by searching at least one data structure for one or more variable types passed as arguments to the method call, storing the one or more variable types,
  - determining a list of variables, of the one or more variable types; and
  - providing a list of variables, sorted according to a hierarchical order, that are ~~associated with and~~ available to be passed to the method call.
2. (Original) The method of claim 1, further comprising:
  - receiving a selection of a variable from the list of variables; and
  - modifying source code displayed on an output device according to the selection of the method call and the selection of the variable.
- 3-6. (Cancelled)
7. (Currently Amended) The method of claim 1 6, further comprising searching the at least one data structure for one or more internal variables comprising an internal variable type and comparing each of the internal variable types to the ~~at least one or~~ more variable types wherein, if the internal variable type matches one of the variable types, then storing the internal variables.
8. (Currently Amended) The method of claim 1 6, further comprising searching the at least one data structure for one or more external variables comprising an external variable type and comparing each of the external variable types to the ~~at least one or~~ more variable types wherein, if the external variable type matches one of the variable types, then storing the external variables.

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9-11. (Canceled)

12. (Currently Amended) The method of claim 44 1, wherein sorting the variables in hierarchical order comprises weighting the variables and listing the variables according to the weights.

13. (Currently Amended) The method of claim 44 12, wherein weighting the variables comprises associating each variable with a weighting factor based on attributes comprising a most recently modified variable attribute, a most recently created variable attribute, a local variable attribute, class attribute, external attribute, usage attribute, initialized attribute, and combinations thereof.

14. (Original) The method of claim 13, wherein associating each variable with a weighting factor based on attributes comprises summing the weighting factors for each variable and ranking the variables based upon a summation value.

15. (Currently Amended) A computer-readable medium comprising a programming assistance tool, wherein the programming assistance tool, when executed by a processor performs an operation comprising:

upon receiving a selection of a method call from a list of method calls for a source code document,

determining one or more variables types by searching at least one data structure for one or more variable types passed as arguments to the method call, storing the one or more variable types;

determining a list of variables, of the one or more variable types; and

generating, for display, a list of variables, sorted according to a hierarchical order, that are associated with and available to be passed to the method call, wherein the selection of the method call and a selection of a variable from the list of variables are to be input to the source code document.

16-19. (Cancelled)

20. (Currently Amended) The computer-readable medium of claim 15 49, further comprising searching the at least one data structure for one or more internal

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variables comprising an internal variable type and comparing each of the internal variable types to the ~~at least one~~ or more variable types wherein, if the internal variable type matches one of the variable types, then storing the internal variables.

21. (Currently Amended) The computer-readable medium of claim 15 ~~49~~, further comprising searching the at least one data structure for one or more external variables comprising an external variable type and comparing each of the external variable types to the ~~at least one~~ or more variable types wherein, if the external variable type matches one of the variable types, then storing the external variables.

22-24. (Cancelled)

25. (Currently Amended) The computer-readable medium of claim 16 ~~24~~, wherein listing the variables in hierarchical order comprises weighting the variables, and listing the variables according to the weights.

26. (Original) The computer-readable medium of claim 25, wherein weighting the variables comprises associating each variable with a weighting factor based on attributes comprising a most recently modified variable attribute, a most recently created variable attribute, a local variable attribute, class attribute, external attribute, usage attribute, initialized attribute, and combinations thereof.

27. (Original) The computer-readable medium of claim 26, wherein associating each variable with a weighting factor based on attributes comprises summing the weighting factors for each variable and ranking the variables based upon a summation value.

28. (Currently Amended) A processing system, comprising:  
a memory comprising:  
a source code document;  
a programming assistance tool to modify the source code document;  
a method call list configurable with a list of method calls; and

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a variables list configurable with a list of variables available to pass to at least one method call from the list of method calls; and  
a processor which, when executing the programming assistance tool, is configured to perform an operation comprising:

receive a selection of a method call from the list of method calls;  
prepare, for display, the list of variables associated with and available to be passed to the method call;  
sort the list of variables in a hierarchical order;  
receive a selection of a variable from the list of variables; and  
modify the source code document according to the selection of the method call and the selection of the variable.

29. (Currently Amended) The processing system of claim 28, wherein the processor is further configured to sort the list of method calls into a hierarchy based on at least one of usage, alphabetical order, accessibility, and combinations thereof.

30-31. (Cancelled)

32. (Currently Amended) The processing system of claim 28-31, wherein processor is configured to sort the variables in the hierarchical order by weighting the variables.

33. (Original) The processing system of claim 32, wherein weighting the variables comprises associating each variable with a weighting factor based on attributes comprising a most recently modified variable attribute, a most recently created variable attribute, a local variable attribute, class attribute, external attribute, usage attribute, initialized attribute, and combinations thereof.

34. (Original) The processing system of claim 33, wherein associating each variable with a weighting factor based on attributes comprises summing the weighting factors for each variable and ranking the variables based upon a summation value.